

ABSTRACT OF THE DISCLOSURE

[00099] A computer program product (190), and a geometric modeling system which executes the program, provides a visual depiction of a three dimensional object upon a display device (158). The program (190) detects insertion of a generic movant solid shape into a scene for relating the movant solid shape to a target or host solid shape. Upon detection of insertion, the program configures data representative of one of the movant solid shape and the target solid shape. The representative data is configured so that one of the solid shapes of the relation is depicted on the display device as having a particular attribute(s) in accordance with (1) an attribute of the solid shape with which it relates; and/or (2) one or more predetermined rules. The program can configure the representative data of the movant solid shape in accordance with an attribute of the target solid shape in various ways (e.g., as having a particular size or dimension for compatibility with the target solid shape, or as having a particular position or physical orientation relative to the target solid shape). The predetermine rule(s) by which the program can configure the movant solid shape can be based on diverse criteria (e.g., as a particular member of a class of solid shapes represented by a generic solid shape, as a preferred procurement item). In an example implementation, configuration of the movant solid shape, and in some situations the target solid shape, is facilitated by the program allocating a part object for each of solid shape, with each part object having one or more connector objects conceptually associated with corresponding physical locations on the respective solid shape.